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ESTIMATED U.S. PETROLEUM BALANCE

SUMMARY

The level of total domestic products supplied in April increased 594 MBD (4.0%) over last April's. Following the demand trend of recent months, this year-to-year increase is mainly the result of higher consumption of light products, especially distillates, and "other oils".

After falling in March due to an operational problem at the Alaskan pipeline, production in Alaska actually rose slightly in April above previously-prevailing levels, permitting total U.S. production to exceed last year's level by 40 MBD. Imports, primarily crude oil, continued to exceed prior-year levels as a result of the growth in petroleum demand. Inventories rose about 6 million barrels compared to a decrease of similar size last April.

Though experiencing a slight upturn in the second half of the month, the number of active rigs fell about 4% during April from March levels, seasonally adjusted. Wells reported drilled rose 9.6% in March over prior-year levels. April data are not yet available.

PRODUCTS SUPPLIED^{1/}

Gasoline

Gasoline was supplied at a 195 MBD (3.0%) higher level than last April's, somewhat above the year-to-year increases that have prevailed since late 1983. Last March experienced a considerably higher level of deliveries to replenish depleted secondary storage and some filling of end user tankage prior to the 4/1/83 effective date of a 5 cent increase in the federal motor fuel tax. As a result, April 1983 deliveries would have been expected to be substantially lower than in the prior month. However, rising delivery levels in subsequent months indicate that the April-May period may have been the point at which gasoline demand turned meaningfully upward, offsetting the adverse effect of March's high volume on April delivery levels.

Gasoline prices rose about 1½ cents in April; they are currently about 3½ cents (3%) below last year and about 23% below early-1981 highs, when adjusted for inflation.

Car sales in April were up 30% over last year, continuing the substantial increases of the past several months. The effect of the change in the mix of the car fleet continues to be gradually reflected in unleaded's market share. Unleaded gasoline's share of the total gasoline market was down slightly in April from recent-month levels but was still about three percentage points above last April.

Distillates

The level of distillates supplied was about 114 MBD (4.2%) above last April's. On the basis of continued substantial increases in truck and rail traffic, and greater off-highway use, a higher increase—perhaps an additional 100 MBD—should have occurred. However, apparent lack of purchases for non-primary storage and a roughly 40 MBD decline due to weather about 12% warmer than last year acted as offsets.

Residual Fuel Oil

Residual fuel oil was supplied at a 55 MBD (4.0%) lesser rate than last April. While still considerably below last year, underlying residual fuel oil demand has been relatively stable during the past few months, though weather-related delivery increases in January resulted in an increase over last year for the first quarter. Worldwide shipping activity started to recover in late 1983, resulting in lessened year-to-year decreases in bunker fuel sales. With bunker fuel sales in early 1984 likely to have been almost even with last year's level and purchases by electric utilities higher, the decrease appears to result mainly from weak demand in the industrial sector.

While year-to-year increases in electricity production have lessened in recent weeks as the weather returned to a more normal pattern, they are, at about 6% during April, still substantial. In addition, the utilities' residual fuel oil stocks, some 25 million barrels below year-earlier levels toward the end of 1983, have had to be replenished.

Though the decline in industrial sector residual fuel oil demand seems to have come to a halt, a consistent upturn of that sector's activities has not yet materialized. The majority of industrial boilers—and practically all new installations—have dual-

fuel capability, permitting speedy switching between fuels. Both residual fuel oil and natural gas prices experienced similar small price declines during the past several months, and there thus has been no price incentive for switching between these two fuels. However, demand for both fuels has risen in recent months from prior depressed levels, mainly as a result of the broadening of the economic recovery.

Kerosine Jet Fuel

Kerosine jet fuel was supplied at a 7.8% higher rate in April than a year ago. Airline traffic has been strong in recent months. The current rate of increase is likely to be a better reflection of the true increase in kerosine jet fuel demand than the 15% year-to-date figure which was inflated by substantial beginning-of-the-year deliveries into end-user storage. Miles flown increased more than 9% for the January-February period, the latest months for which data are available. Succeeding months are likely to have also experienced substantial increases. The fuel use/"miles flown" ratio seems to indicate that efforts to improve fuel efficiency have not slackened.

Other Oils

Other oils were supplied at a 334 MBD (10.3%) higher rate than last April. This strong showing is mainly attributable to continuing high demand in the chemical industry and allied activities, as well as an upswing in the road building industry. The chemical industry had initially been slow in reflecting the economic recovery but has apparently benefited from improved demand since mid-1983. Sales of major chemical companies during 1983 averaged some 8% over prior-year levels and showed an 11% year-to-year increase for the first quarter of 1984. Road building and maintenance projects have been spurred by last April's 5¢ tax increase in federal motor fuel taxes. Asphalt and road oil consumption have been experiencing year-to-year increases averaging about 5% in recent months.

(In millions of B/D)	APRIL ESTIMATES			YEAR-TO-DATE ESTIMATES		
	1984	1983	% Change	1984	1983	% Change
—Total domestic products supplied	15.4	14.8	4.0	15.7	15.0	5.2
—Motor gasoline supplied	6.7	6.5	3.0	6.4	6.3	0.5
—Distillate fuel oil supplied	2.8	2.7	4.2	3.1	2.8	10.3
—Residual fuel oil supplied	1.3	1.4	(4.0)	1.6	1.5	4.7

PETROLEUM SUPPLY^{1/}

Total supply rose 806 MBD over prior-year levels in April as a result of a 450 MBD increase in imports and a 356 MBD rise in total domestic supply.

Production

April crude oil production exceeded last year's level by about 0.5%. Alaskan production, after several days of reduced flow through the Alaskan pipeline during March, was even higher during April than levels prevailing in recent "normal" months. The roughly 50 MBD increase in Alaskan production compared with last year was offset by a small decline in lower 48 output. At this point, lower 48 production is some 1.2 million barrels per day higher than could have been expected if price decontrol had not ended the steady declines of the seventies.

Performance has not been uniform. Exhibit I shows production levels over the past 24 months for the five top-producing states (Texas, Alaska, Louisiana, California and Oklahoma) which, in total, currently account for more than 80% of total U.S. production, as well as for the total of the remaining states. Exhibit II traces the five states' year-to-year changes in production levels for the same period. Output has generally shown year-to-year increases in Louisiana, Alaska, and California, while in Texas and Oklahoma production has been on the decrease. Of the top producers, Louisiana showed an increase of more than 60 MBD, or close to 5%, while Texas experienced a 70 MBD decrease (or about 3%).

In total, these five states have shown a roughly 10 MBD increase during the past 12 months, while the remaining states experienced a decrease of about 20 MBD.

Imports

Imports increased 450 MBD, or 10%, over last April's level. Crude oil imports continued at high levels, the 481 MBD increase being offset minimally by a 31 MBD decrease in product imports. Distillate imports fell sharply, decreasing by about 50% from high, weather-related levels of the first quarter to about 150 MBD in April, though even at that level they were still twice as high as a year ago.

The leading oil importers to the U.S. in February (the latest month available) ranked as follows: (1) Mexico, (2) Canada, (3) Venezuela, (4) Virgin Islands, and (5) Algeria. About 1/3 of imports originated in OPEC countries and 2/3 in non-OPEC countries. Reverse ratios prevailed no more than 5 years ago.

Net imports dependency was 28.4% in April compared with 25.2% last April. The rate has not varied significantly during the past few months.

Inventories

Total inventories rose about 6 million barrels in April, slightly above historical experience.

Gasoline stocks increased 5 million barrels in a counter-seasonal move. They represent 37 days of supply, slightly higher than normal for this time of year.

Crude oil stocks rose by about 11 million barrels, reverting to the 340-350 million barrel level that, with minor variations, has prevailed for the past two years. While some 60 million barrels above immediate needs, the excess is seemingly perceived as providing a satisfactory cushion for unexpected increases in product requirements and, combined with substantial available refinery capacity, lends additional flexibility to the refining system.

Distillate inventories are not substantially different from last year's level.

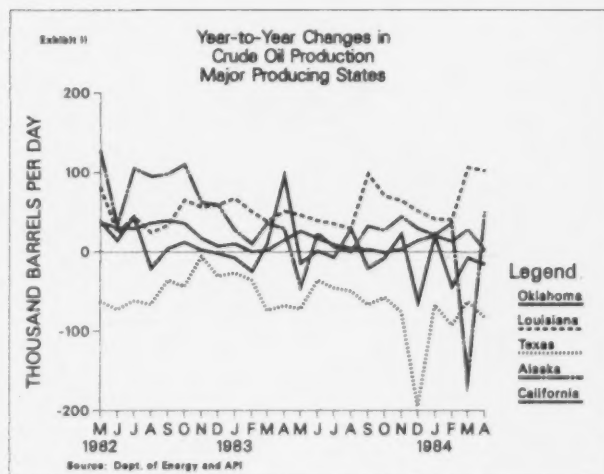
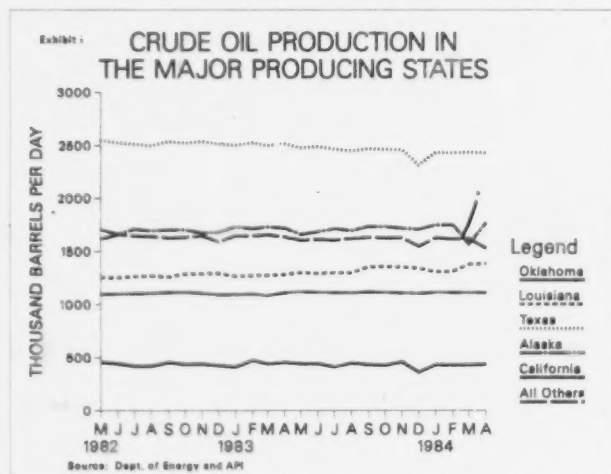
Refinery Utilization

Refinery utilization rose to 74.8% in April, roughly 5½ percentage points above the year-earlier level. The increase results from the combination of a roughly 500 MBD higher rate of input to distillation units and a similar-size decrease in operable capacity.

Exploration

The number of active rigs fell 4% in April, seasonally adjusted. April data for wells drilled are not yet available. However, in March the number of wells drilled rose about 9.6% over the prior year, a slightly higher increase than experienced in February.

	APRIL ESTIMATES			YEAR-TO-DATE ESTIMATES		
(In millions of B/D)	1984	1983	% Change	1984	1983	% Change
—Total supply	16.2	15.4	5.2	16.4	14.9	9.8
—Crude production ^{2/}	8.8	8.7	0.5	8.7	8.7	(0.2)
—Crude oil imports ^{3/4/}	3.4	2.9	16.3	3.1	2.4	27.4
—Product imports	1.6	1.6	(1.9)	2.0	1.5	40.2



- 1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.
- 2/ Includes lease condensate.
- 3/ Beginning with January 1977, the U.S. Department of Energy began reporting crude oil imports as of the date of importation. Previously, this data, with the exception of Canadian crude imports, was reported as of the date it was received at the refinery. This change may affect both the level of crude oil imports and crude oil stocks. API estimates of these data may, therefore, differ slightly from those of the U.S. Department of Energy.
- 4/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 397 million barrels as of April 30, 1984).

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ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	APRIL			YEAR-TO-DATE		
	1984 ¹	1983 ²	% Change	1984 ^{3R}	1983 ²	% Change
Products Supplied:						
Total motor gasoline	6,696	6,501	3.0	6,373	6,343	0.5
Finished leaded motor gasoline*	2,881	2,996	(3.8)	2,685	2,906	(7.6)
Finished unleaded motor gasoline*	3,815	3,505	8.8	3,688	3,437	7.3
Naphtha-jet	213	214	(0.5)	202	213	(5.2)
Kerosine-jet	907	841	7.8	922	802	15.0
Distillate fuel oil	2,827	2,713	4.2	3,090	2,801	10.3
Residual fuel oil	1,309	1,364	(4.0)	1,591	1,519	4.7
All other oils ⁴	3,580	3,246	10.3	3,741	3,453	8.3
Reclassified ⁵	- 157	- 98	60.2	- 187	- 174	7.5
Total domestic products supplied	15,375	14,781	4.0	15,732	14,957	5.2
Exports	620	809	(23.4)	602	863	(30.2)
Total products supplied	15,995	15,590	2.6	16,334	15,820	3.2
Supply:						
Domestic production:						
Crude oil ⁶	8,757	8,717	0.5	8,673	8,694	(0.2)
Natural gas liquids	1,598	1,502	6.4	1,610	1,575	2.2
Other supply ⁷	862	642	34.3	908	723	25.6
Total domestic supply	11,217	10,861	3.3	11,191	10,992	1.8
Imports:						
Crude oil, total	3,430 ^{10/}	2,949 ^{10/}	16.3	3,119 ^{10/}	2,448 ^{10/}	27.4
Canadian	334	246	35.8	314	248	26.6
Other	3,096	2,703	14.5	2,805	2,200	27.5
Products, total	1,559	1,590	(1.9)	2,049	1,461	40.2
Residual fuel oil	546	743	(26.5)	826	689	19.9
Other	1,013	847	19.6	1,223	772	58.4
Total imports	4,989	4,539	9.9	5,168	3,909	32.2
Total supply	16,206	15,400	5.2	16,359	14,901	9.8
Stock change, all oils	+ 211	- 190	XXXX	+ 25	- 919	XXXX
Refinery Operations						
Input to crude oil distillation units	12,170	11,664	4.3	12,088	11,306	6.9
Operable capacity	16,270	16,832	(3.3)	16,229	16,832	(3.6)
Refinery utilization (%) ⁸	74.8%	69.3%	7.9	74.5%	67.2%	10.9
Crude oil runs	11,907	11,436	4.1	11,868	11,004	7.9
Stocks (millions bbls.)	1984			1983 ²	% Change from ...	
	Apr. 30 ⁹	Mar. 31 ⁹		Apr. 30	Previous Month	Year Ago
Crude oil ^{10/}	345.0	333.8		365.8	3.4	(5.7)
Unfinished oils	115.4	113.5		114.1	1.7	1.1
Total motor gasoline**	250.1	244.8		220.8	2.2	13.3
Finished leaded motor gasoline*	101.4	101.2		91.0	0.2	11.4
Finished unleaded motor gasoline*	107.0	101.4		91.9	5.5	16.4
Naphtha-jet	6.4	6.7		6.4	(4.5)	-
Kerosine-jet	34.1	34.2		33.8	(0.3)	0.9
Distillate fuel oil	100.4	110.2		103.2	(8.9)	(2.7)
Residual fuel oil	45.7	48.0		46.6	(4.8)	(1.9)
All other oils	179.9	179.5 ^{r/}		167.2	0.2	7.6
Total all oils	1,077.0	1,070.7 ^{r/}		1,057.9	0.6	1.8

1/ Based on API estimated data converted to a monthly basis.

2/ Source: U.S. Department of Energy.

3/ Source: January-February, U.S. Department of Energy, March-April, API.

4/ Includes crude losses.

5/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.

6/ Includes lease condensate.

7/ Includes Unaccounted-for crude oil, Refinery input of other hydrocarbons, and Processing gain.

8/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."

9/ Derived by interpolating API weekly stocks data.

10/ Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.

R/ Revised.

* Included in motor gasoline.

** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.